

IMPLEMENTATION

Library Usage

Library usage and its positive relationship to student achievement can best be achieved by:

- ensuring that school library media specialists have clerical help (four percent effect), and
- providing many varieties of print and online resources (two percent effect).

Summer Reading Program

A summer reading program's positive relationship to student achievement can best be achieved as a result of:

- encouraging an interest in reading,
- enhancing the act of reading, and
- lessening the effect of formal education being suspended for three months.



Summer reading programs positively affect student achievement, and there is a larger significant effect when school library media centers cooperate with local public libraries (18 percent effect).

Library Access

Library access and its positive relationship to student achievement can be accomplished by:

- designating a library/media coordinator to manage resource and information sharing (six percent effect), and
- providing many varieties of online resources including an online catalog (22 percent effect).

CONCLUSIONS

Schools with library media centers and services display a 10.6% positive relationship to student achievement measured using the WAMI.

Three components of school library media centers and services have more of a relationship to the WAMI than others. These are:

- library usage,
- summer reading programs, and
- library access.

Although demographic characteristics have a high relationship to the WAMI, they **do not eliminate** the positive relationships.

Full-text Research Studies

The complete statistical studies, the research summary, and PowerPoint presentations may be found on the Missouri Department of Elementary and Secondary Education's Web site: dese.mo.gov/divimprove/curriculum/lmcindex.htm.

Questions?

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Printed by the Missouri Department
of Elementary and Secondary Education

DESE 3220-12 8/04

SHOW ME CONNECTION

HOW SCHOOL LIBRARY MEDIA CENTER SERVICES AFFECT STUDENT ACHIEVEMENT



*A study commissioned by the
Missouri Department of Elementary
and Secondary Education and
the Missouri State Library*

SHOW ME CONNECTION

How School Library Media Center Services Affect Student Achievement

The Missouri Department of Elementary and Secondary Education and the Missouri State Library analyzed school library media center services to study their effect on student achievement. A multi-dimensional study was conducted to test the following hypotheses.

Hypothesis 1

Schools with library media centers and services display a positive relationship to student achievement measured using the weighted average MAP index (WAMI).

Result

Analysis determined 12.6 percent of the variance of the WAMI could be explained by school library media center services. The 12.6 percent variance applies to all schools in the state, not just the 241 used in the study.

In standard testing methods, statistical significance can be proven at 0.05 or lower. When analyzing the statistical significance for other schools in the state, testing showed a 0.003 significance.



Hypothesis 2

Certain components of school library media centers and services have more of a relationship to the WAMI than others.

Result

Hypothesis two involved testing 11 library components for their relationship to student achievement as measured by WAMI. The following five library components showed a statistically significant relationship through the first and second testing:

- library usage
- summer reading programs
- library access
- library budget
- technology

The third test showed library budget and technology alone lose their relationship to WAMI. Simply having a library budget or technology does not affect WAMI. It is the use of the library budget and technology that allows library usage, summer reading, and library access to happen.

Implementation of these three components requires a human touch. A school library media specialist is necessary to create library usage, summer reading programs, and library access, which affect student achievement. Without staff, a library media center is only a warehouse of materials.

Hypothesis 3

Although demographic characteristics have a high relationship to the WAMI, they do not eliminate the positive relationships from hypothesis one and two.

Result

Using a more conservative approach, school library media center services explained 10.6 percent of the WAMI variance not explained by the demographic variables, community variables, and school variables.



DATA COLLECTION AND ANALYSIS

The study was conducted using a variety of collection methodologies, including:

- core data
- questionnaire

Although more than 241 complete cases (all core data and questionnaire) were desired, especially after 782 school buildings completed the questionnaire, the 241 cases allow the analysis to be statistically valid and reliable at a 95 percent confidence interval. The 241 complete cases exceeded the number of cases used in any other state's study.

Statistical analyses included identifying the connections between school library media center services and student achievement in the sample data and determining the 'significance levels' that indicate the extent to which the sample data represents the entire Missouri student population.

“There is explicit evidence that school library media centers and library media specialists affect students and their achievement as measured by the MAP test scores.”